

# Mineral Industry Surveys

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## COPPER IN APRIL 2002

Average daily mine production in April declined by about 3% as most major producers of copper concentrate reported lower production. Average production of electrowon copper rose slightly. Mine production for the first 4 months of 2002 was down by about 15% from the comparative period in 2001. Average daily refined production rose in April, yet production for the first 4 months of the year was down by about 13% from that of the first 4 months of 2001. Reported consumption of refined copper rose in April to the highest level since October 2001, but year-to-date consumption was 15% below that for the equivalent period in 2001.

According to data compiled by the American Bureau of Metal Statistics, shipments of wire rod by U.S. mills totaled 154,000 metric tons (t) in April, a 9.4% gain over those for March and a 4.3% increase from April 2001. However, year-to-date shipments through April were 8.2% below 2001 levels, and U.S. apparent consumption (shipments plus net trade) of wire rod for the first quarter of 2002 was down by 12% from the first quarter of 2001 (American Bureau of Metal Statistics, Inc., 2002).

According to data compiled by the International Copper Study Group (ICSG), the global apparent refined copper production surplus for the first 4 months of 2002 fell to 189,000 t from a surplus of 219,000 t for the first 3 months, continuing the steady monthly decline in the surplus since the start of the year. This compares, however, to a surplus of 2,000 t for January to April 2001. Global demand for refined copper in April was at the same level as in April 2001, though demand for the first 4 months of the year remained 2.7% below that for the same period in 2001. Global refined production for the first 4 months of 2002 rose 1% compared with that of last year.

Owing to cutbacks throughout the world, ICSG data indicate that mine production of copper decreased by 3.2% in the first 4 months of 2002, compared with that for the same period of 2001. As a result, new copper supply—mine production plus secondary refined production—for the first 4 months of 2002 was insufficient (-55,000 t) to meet refined demand for the same period. This indicates that the surplus of refined copper production was derived from accumulated concentrate and blister stocks (International Copper Study Group, 2002).

On May 8, Olin Corporation and Chase Industries Inc. announced that they had entered into a merger agreement under which Chase would become a wholly owned subsidiary of Olin. Chase stockholders would receive a fixed exchange ratio of 0.64 share of Olin for each outstanding share of Chase. The transaction is conditioned on shareholder approval from both companies as well as regulatory clearances and other customary closing conditions. Shareholder meetings for both companies are scheduled for September (Olin Corporation, 2002). Chase is a leading U.S. producer of brass rod, while Olin is a leading producer of copper and brass sheet products. In addition, Olin operates its Winchester Division, a producer of ammunition, and its Chlor-Alkali Products Division, which produces chlorine, caustic soda, and related products.

## References Cited

- American Bureau of Metal Statistics, Inc., 2002, U.S. copper rod market, ABMS report 4: Chatham, NJ, American Bureau of Metal Statistics, June 5, 4 p.  
International Copper Study Group, 2002, Copper—Preliminary data for April 2002: Lisbon, International Copper Study Group press release, July 9, 1 p.  
Olin Corporation, 2002, Olin Corporation to acquire Chase Industries: Norwalk, CT, Olin Corporation press release, May 8, 3 p.

TABLE 1  
SALIENT STATISTICS OF THE COPPER INDUSTRY IN THE UNITED STATES 1/

(Metric tons, unless otherwise specified)

	Source table 2/	2001p/	2002		January - April
			March	April	
Production:					
Primary:					
Mine, recoverable	(2)	1,340,000	101,000 r/	94,800	380,000
Refinery:					
Electrolytic:					
Domestic	(4)	823,000 r/	58,800	60,300	256,000
Foreign	(4)	185,000	10,100	10,100	37,800
Electrowon	(4)	628,000 r/	50,800	50,600	200,000
Total	(4)	1,640,000 r/	120,000	121,000	494,000
Secondary recoverable copper:					
Refineries	(5)	154,000 r/	7,230 r/	7,630	29,600
Ingot makers 3/	(5)	121,000	10,100	10,100	40,200
Brass and wire-rod mills	(5)	727,000 r/	67,200	64,900	259,000
Foundries, etc. 3/	(5)	67,100	5,590	5,590	22,400
Smelter, total	(3)	947,000 r/	70,100	67,900	268,000
Consumption:					
Apparent	(8)	2,510,000 r/	178,000	NA	NA
Refined (reported)	(7)	2,610,000 r/	204,000 r/	213,000	799,000
Purchased copper-base scrap	(9)	1,380,000	114,000 r/	111,000	443,000
Stocks at end of period:					
Total refined	(11)	952,000 r/	1,050,000	1,070,000	XX
Blister, etc.	(11)	98,000 r/	44,000	39,300	XX
Prices:					
U.S. producer cathode (cents per pound) 4/	(12)	76.854	78.683	76.966	76.494
Imports: 5/					
Ores and concentrates 6/	(14)	122,000	20,200	NA	NA
Refined	(14)	991,000	53,000	NA	NA
Exports: 5/					
Ores and concentrates 6/	(15)	45,300	3,990	NA	NA
Refined	(15)	22,500	3,150	NA	NA

p/ Preliminary. r/ Revised. NA Not available. XX Not applicable.

1/ Data are rounded to no more than three significant digits, except prices; may not add to totals shown.

2/ Numbers in parentheses refer to the detailed tables where these data are located.

3/ Monthly data and 2001 cumulative data estimated based on 2000 monthly average.

4/ Source: Platts Metals Week.

5/ Source: U.S. Census Bureau.

6/ Copper content.

TABLE 2  
MINE PRODUCTION OF RECOVERABLE COPPER  
IN THE UNITED STATES 1/

(Metric tons)

Period	Arizona	Others 2/	Total
2001: p/			
January - April r/	282,000	167,000	449,000
April	69,800	40,800 r/	111,000 r/
May	78,700	43,600	122,000
June	75,800 r/	39,500	115,000
July	72,900 r/	37,000	110,000
August	73,600 r/	35,900	109,000
September	73,000	33,600	107,000
October	76,800	36,600	113,000
November	73,000 r/	29,000	102,000 r/
December	75,900 r/	35,800	112,000 r/
Year	882,000 r/	458,000	1,340,000
2002:			
January r/	65,500	28,600	94,100
February	59,800	31,000	90,800 r/
March r/	65,500	35,200	101,000
April	62,000	32,800	94,800
January - April	253,000	128,000	380,000

p/ Preliminary. r/ Revised.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes production from Alaska, Idaho, Missouri, Montana, Nevada, New Mexico, and Utah.

TABLE 3  
COPPER PRODUCED AT SMELTERS IN THE  
UNITED STATES, BY SOURCE 1/ 2/

(Metric tons, copper content)

Period	Domestic and foreign ores	Scrap	Total
2001: p/			
January - April	W	W	328,000
April	W	W	81,900
May	W	W	84,700
June	W	W	80,200
July	W	W	58,100
August	W	W	71,100
September	W	W	70,900
October	W	W	86,300
November	W	W	82,100 r/
December	W	W	85,800 r/
Year	W	W	947,000 r/
2002:			
January	W	W	70,000 r/
February	W	W	60,400
March	W	W	70,100
April	W	W	67,900
January - April	W	W	268,000

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data included in "Total."

1/ Includes blister, anode and black copper from primary or secondary sources.

2/ Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 4  
PRODUCTION OF REFINED COPPER, BY SOURCE AND METHOD OF RECOVERY 1/

(Metric tons)

Period	Primary materials				Scrap			Total refined
	Electrolytically refined 2/		Electrowon	Total	Electro-lytically refined 2/	Fire refined	Total	
	Domestic 3/	Foreign						
2001: p/								
January - April	291,000 r/	56,200	191,000 r/	538,000 r/	W	W	62,300	600,000 r/
April	66,500	12,900	51,700 r/	131,000 r/	W	W	13,400	145,000 r/
May	72,500	15,100	55,000	143,000	W	W	12,800	155,000
June	71,100	15,500	55,200 r/	142,000	W	W	13,200	155,000
July	64,800	14,300	54,500 r/	134,000	W	W	13,900	148,000
August	51,000 r/	19,900	55,500 r/	126,000 r/	W	W	15,400 r/	142,000 r/
September	63,100 r/	17,900	53,800 r/	135,000 r/	W	W	12,800 r/	148,000 r/
October	59,400 r/	17,400	55,000 r/	132,000 r/	W	W	11,100 r/	143,000 r/
November	72,100 r/	16,100	54,100 r/	142,000 r/	W	W	6,740 r/	149,000 r/
December	77,600 r/	12,900	54,100 r/	145,000 r/	W	W	5,920 r/	151,000 r/
Year	823,000 r/	185,000	628,000 r/	1,640,000 r/	W	W	154,000 r/	1,790,000 r/
2002:								
January	69,500	9,620	52,800 r/	132,000 r/	W	W	7,130 r/	139,000 r/
February	67,300	8,050	46,200 r/	121,000 r/	W	W	7,670 r/	129,000 r/
March	58,800	10,100	50,800	120,000	W	W	7,040 r/	127,000 r/
April	60,300	10,100	50,600	121,000	W	W	7,630	129,000
January - April	256,000	37,800	200,000	494,000	W	W	29,500	524,000

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Scrap Total."

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Based on source of material at smelter level.

3/ Includes fire-refined copper.

TABLE 5  
COPPER RECOVERABLE IN UNALLOYED AND ALLOYED FORM FROM PURCHASED COPPER-BASE SCRAP 1/

(Metric tons, copper content)

Period	Refineries 2/		Ingot makers 3/		Brass and wire-rod mills		Foundries, etc. 3/		Total 4/
	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2001: p/									
January - April r/	12,100	50,200	9,970	30,200	245,000	9,210	4,900	17,500	379,000
April	2,680	10,700	2,490	7,560	61,400	1,770	1,230	4,360	92,200
May	2,240	10,500	2,490	7,560	60,400	297	1,230	4,360	89,100
June	2,730	10,500	2,490	7,560	57,300	1,060	1,230	4,360	87,200
July	3,470	10,400	2,490	7,560	52,000	969	1,230	4,360	82,500
August	4,340 r/	11,000 r/	2,490	7,560	57,300	1,790	1,230	4,360	90,100 r/
September	3,130 r/	9,700 r/	2,490	7,560	56,100	1,140	1,230	4,360	85,700 r/
October	3,720 r/	7,420 r/	2,490	7,560	62,500	1,790	1,230	4,360	91,100 r/
November	2,230 r/	4,510 r/	2,490	7,560	57,800	1,640	1,230	4,360	81,800 r/
December	1,840 r/	4,080 r/	2,490	7,560	58,500 r/	1,880	1,230	4,360	82,000 r/
Year	35,800 r/	118,000 r/	29,900	90,700	707,000 r/	19,800	14,700	52,400	1,070,000
2002:									
January	3,110 r/	4,020 r/	2,490	7,560	60,500	1,790	1,230	4,360	85,000
February	3,350 r/	4,310 r/	2,490	7,560	62,600	1,820	1,230	4,360	87,800 r/
March	2,910 r/	4,330 r/	2,490	7,560	65,400	1,770	1,230	4,360	90,000 r/
April	3,300	4,330	2,490	7,560	64,000	904	1,230	4,360	88,100
January - April	12,700	17,000	9,970	30,200	252,000	6,280	4,900	17,500	351,000

p/ Preliminary. r/ Revised.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Electrolytically refined and fire-refined scrap based on source of material at smelter level.

3/ Monthly data and 2001 cumulative data estimated based on 2000 annual data.

4/ Does not include an estimate, based on reported 2000 data, of 3,790 tons per month from new scrap and 2,380 tons per month from old scrap of copper recovered from scrap other than copper-base.

TABLE 6  
PRODUCTION, SHIPMENTS, AND STOCKS OF BRASS AND WIRE-ROD MILL SEMIFABRICATES 1/

(Metric tons, gross weight)

Period	Production		Shipments		Stocks, end of period	
	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills
2001: p/						
January - April	510,000 r/	642,000	507,000 r/	640,000	XX	XX
April	125,000	152,000	126,000	148,000	55,700	31,600
May	124,000	152,000	125,000	154,000	54,200	30,000
June	123,000	150,000	127,000	150,000	50,200	30,300
July	107,000	158,000	107,000	156,000	50,100	30,100
August	128,000 r/	163,000	128,000 r/	163,000	49,700	30,000
September	122,000 r/	158,000	121,000 r/	159,000	50,800	28,800
October	124,000 r/	164,000	123,000 r/	165,000	52,000	25,700
November	116,000	157,000	117,000 r/	155,000	52,300	27,700
December	113,000 r/	139,000	111,000 r/	140,000	53,600	25,800
Year	1,470,000	1,880,000	1,470,000 r/	1,880,000	XX	XX
2002:						
January	123,000	143,000	125,000 r/	143,000	49,500	25,600
February	122,000 r/	139,000	123,000 r/	135,000	48,500	28,900
March	131,000 r/	148,000	130,000 r/	147,000	48,900	29,200
April	130,000	155,000	130,000	157,000	48,800	28,000
January - April	505,000	584,000	509,000	582,000	XX	XX

p/ Preliminary. r/ Revised. XX Not applicable.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 7  
CONSUMPTION OF REFINED COPPER 1/

(Metric tons)

Period and item	Wire-rod mills	Brass mills	Other plants 2/	Total
2001: p/				
January - April	689,000	233,000 r/	20,900 r/	943,000 r/
April	160,000	53,700	5,220	219,000
May	156,000	55,800	5,220	217,000
June	157,000	54,900	5,220	217,000
July	161,000	44,900	5,220	211,000
August	160,000	53,100 r/	5,220	218,000 r/
September	155,000	47,400 r/	5,220	208,000
October	164,000	46,600 r/	5,220	216,000 r/
November	151,000	45,700 r/	5,220	202,000
December	135,000	41,800 r/	5,220	182,000 r/
Year	1,930,000	623,000 r/	62,600	2,610,000 r/
2002:				
January	140,000	46,600 r/	5,220	192,000 r/
February	138,000	47,500 r/	5,220	191,000
March	147,000	51,400 r/	5,220	204,000 r/
April:				
Cathodes	156,000	37,700	1,210	194,000
Wire bars	--	--	W	W
Ingots and ingot bars	--	1,540	1,760	3,290
Cakes and slabs	762	W	W	762
Billets and other	--	12,200	2,250	14,500
Total	156,000	51,400	5,220	213,000
January - April	581,000	197,000	20,900	799,000

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Billets and other." -- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Consumption by ingot makers, chemical plants, foundries, and miscellaneous manufacturers is estimated based on 2000 annual data.

TABLE 8  
U.S. APPARENT CONSUMPTION OF COPPER 1/

(Metric tons)

Period	Refined copper production	Copper in old scrap 2/	Refined general imports 3/	Refined exports 3/	Stock change during period	Apparent consumption
2001: p/						
January - March	406,000 r/	90,300 r/	312,000	6,130	99,200 r/	703,000 r/
April	134,000	27,000	107,000	1,890	70,600	195,000
May	143,000	25,400	72,400	1,020	13,800	226,000
June	142,000	26,100	89,000	815	46,200	210,000
July	134,000	25,900	95,800	1,650	109,000	145,000
August	127,000 r/	27,300 r/	80,900	2,590	30,700 r/	202,000 r/
September	135,000 r/	25,400 r/	114,000	1,190	88,800	184,000 r/
October	132,000 r/	23,800 r/	78,600	4,630	35,300 r/	194,000 r/
November	142,000 r/	20,700 r/	148,000	5,290	68,500 r/	237,000
December	144,000 r/	20,500 r/	101,000	571	56,200 r/	208,000 r/
Year	1,640,000	312,000 r/	1,200,000	25,800	618,000 r/	2,510,000 r/
2002:						
January	131,000	20,300	134,000	393	50,700 r/	234,000 r/
February	123,000	20,700 r/	113,000	699	27,400 r/	229,000 r/
March	120,000	20,400 r/	64,300	3,150	22,900	178,000
April	121,000	19,800	NA	NA	9,890	NA
January - March	374,000	61,500	311,000	4,250	101,000	642,000

p/ Preliminary. r/ Revised. NA Not available.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes reported monthly production of copper from old scrap of copper-base, an estimate for annual reporters, and a monthly average of copper from non-copper-base materials based on 2000 data.

3/ Source: U.S. Census Bureau.

TABLE 9  
CONSUMPTION OF PURCHASED COPPER-BASE SCRAP 1/

(Metric tons, gross weight)

Period	Smelters and refineries		Ingot makers 2/		Brass and wire-rod mills 3/		Foundries, etc. 2/		Total scrap used
	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2001: p/									
January - April	25,000 r/	59,300 r/	14,700 r/	41,700 r/	311,000 r/	9,490	8,720 r/	18,900 r/	489,000 r/
April	6,460	14,800	3,670	10,400	78,100	1,820	2,180	4,740	122,000
May	3,400	17,400	3,670	10,400	77,500	338	2,180	4,740	120,000
June	3,400	16,200	3,670	10,400	73,300	1,120	2,180	4,740	115,000
July	3,590	16,500	3,670	10,400	65,700	1,010	2,180	4,740	108,000
August	4,270 r/	18,000 r/	3,670	10,400	73,000	1,840	2,180	4,740	118,000 r/
September	3,730 r/	16,200 r/	3,670	10,400	71,200	1,190	2,180	4,740	113,000
October	3,990 r/	6,220 r/	3,670	10,400	79,200	1,840	2,180	4,740	112,000 r/
November	3,660 r/	4,880 r/	3,670	10,400	73,100	1,660	2,180	4,740	104,000
December	3,610 r/	3,660 r/	3,670	10,400	73,900	1,930	2,180	4,740	104,000
Year	54,600	158,000 r/	44,000	125,000	898,000	20,400	26,200	56,800	1,380,000
2002:									
January	3,530 r/	4,100 r/	3,670	10,400	76,600	1,840	2,180	4,740	107,000
February	4,120 r/	4,840 r/	3,670	10,400	79,100	1,880	2,180	4,740	111,000 r/
March	3,940 r/	4,450 r/	3,670	10,400	82,700	1,830	2,180	4,740	114,000 r/
April	4,160	4,760	3,670	10,400	80,600	951	2,180	4,740	111,000
January - April	15,800	18,100	14,700	41,700	319,000	6,500	8,720	18,900	443,000

p/ Preliminary. r/ Revised.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Monthly data and 2001 cumulative data estimated from 2000 annual data.

3/ Consumption at brass and wire-rod mills assumed equal to receipts.

TABLE 10  
CONSUMPTION OF PURCHASED COPPER-BASE SCRAP 1/ 2/

(Metric tons, gross weight)

Scrap type and processor	2001 p/		2002			
	January - April	Year	February	March	April	January - April
No. 1 wire and heavy:						
Smelters and refiners	24,800 t/	73,300 t/	5,810 t/	5,350 t/	5,900	21,400
Brass and wire-rod mills	141,000 t/	395,000	35,400	36,500	35,000	141,000
No. 2 mixed heavy and light:						
Smelters and refiners	46,900 t/	120,000	6,240 t/	6,140 t/	6,120	24,900
Brass and wire-rod mills	2,190	5,340	211	264	312	1,080
Total unalloyed scrap:						
Smelters and refiners	71,700 t/	194,000 t/	12,000 t/	11,500 t/	12,000	46,300
Brass and wire-rod mills	143,000 t/	400,000	35,600 t/	36,800	35,300	142,000
Red brass: 3/						
All plants	23,000 t/	60,700 t/	4,310 t/	4,530	4,680	17,800
Leaded yellow brass:						
All plants	123,000 t/	353,000	29,500	31,800 t/	30,000	120,000
Yellow and low brass:						
All plants	36,200 t/	110,000 t/	9,220	9,230	9,350	37,000
Cartridge cases and brass:						
Smelters and refiners	W	W	W	W	W	W
Brass mills	10,900 t/	35,500 t/	4,200	4,160	4,120	16,100
Auto radiators:						
Smelters and refiners	17,400 t/	47,500 t/	3,490 t/	3,490 t/	3,490	14,000
Bronzes:						
Smelters and refiners	4,430 t/	11,700 t/	912 t/	912 t/	912	3,650
Brass mills	3,020	8,300 t/	958	931	941	3,780
Nickel-copper alloys:						
All plants	7,950 t/	18,700	1,690	1,550	1,590	6,470
Low grade and residues:						
Smelters and refiners	20,800 t/	50,000 t/	1,110 t/	1,110 t/	1,110	4,440
Other alloy scrap: 4/						
Smelters and refiners 5/	3,880 t/	9,010 t/	138	138	138	552
Brass mills	1,920 t/	5,570	550	550	550	2,200
Total alloyed scrap:						
Smelters and refiners	74,500 t/	192,000 t/	10,700 t/	10,700 t/	10,700	42,800
Brass mills	178,000 t/	518,000 t/	45,400	47,700	46,200	184,000
Total scrap:						
Smelters and refiners	146,000	385,000 t/	22,800 t/	22,200 t/	22,700	89,100
Brass and wire-rod mills	321,000 t/	919,000 t/	81,000	84,500	81,500	325,000

p/ Preliminary. t/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Other alloy scrap: Smelters and refiners."

1/ Does not include: consumption by foundries, chemical plants, and miscellaneous manufacturers, estimated to total about 6,920 tons of scrap per month in 2000; monthly data include estimates of about 15,500 tons of scrap per month consumed by ingot makers and several smelters that report on an annual basis.

2/ Data are rounded to no more than three significant digits; may not add to totals shown.

3/ Includes composition turnings, silicon bronze, zincy bronze, railroad car boxes, cocks and faucets, gilding metal, and commercial bronze.

4/ Includes refinery brass, beryllium copper, phosphor copper, and aluminum bronze.

5/ Includes items indicated by symbol W.

TABLE 11  
COPPER STOCKS AT END OF PERIOD 1/

(Metric tons)

Period	Crude copper 2/	Refined copper					Total refined	
		Refineries 3/	Wire rod mills 3/	Brass mills 3/	Other 4/	Comex 5/		LME 6/
2001: p/								
April	95,600	27,500	26,500	33,900	4,680	115,000	297,000	504,000
May	98,100	27,800	27,300	22,300	4,680	137,000	298,000	517,000
June	92,500	26,300	30,200	20,200	4,680	150,000	333,000	564,000
July	89,500	19,700	30,800	22,700	4,680	160,000	435,000	673,000
August	93,100 r/	17,800 r/	28,900	23,100 r/	4,680	170,000	459,000	703,000
September	88,100 r/	17,700	28,200	21,100 r/	4,680	181,000	540,000	793,000
October	105,000 r/	19,300 r/	25,700	20,100 r/	4,680	191,000	566,000	828,000 r/
November	88,500 r/	24,300 r/	26,600	24,700 r/	4,680	215,000	601,000	896,000
December	98,000 r/	28,600 r/	32,900	25,500 r/	4,680	244,000	617,000	952,000 r/
2002:								
January	71,200 r/	28,200 r/	33,100	25,000 r/	4,680	258,000	654,000	1,000,000
February	66,100	28,700	14,100	25,100 r/	4,680	275,000	683,000	1,030,000
March	44,000	22,100	15,100	23,700 r/	4,680	284,000	704,000	1,050,000
April	39,300	16,600	20,300	22,300	4,680	296,000	707,000	1,070,000

p/ Preliminary. r/ Revised.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Copper content of blister and other materials in transit and in process of refining.

3/ Stocks of refined copper as reported; no estimates are made for nonrespondents.

4/ Monthly estimates based on reported and 2000 annual data, comprising stocks at ingot makers, chemical plants, foundries, and miscellaneous manufacturers.

5/ Commodity Exchange Inc., New York.

6/ London Metal Exchange Ltd., U.S. warehouses.

TABLE 12  
AVERAGE PRICE OF COPPER IN THE UNITED STATES AND  
ON THE LONDON METAL EXCHANGE

(Cents per pound)

Period	U.S. producers delivered price cathode 1/	Comex first position 2/	LME cash price Grade A
2001:			
April	80.578	76.260	75.467
May	81.166	76.848	76.288
June	75.501	72.573	72.943
July	72.261	69.438	69.166
August	71.559	67.341	66.407
September	69.628	65.428	64.682
October	67.422	63.204	62.460
November	70.560	66.093	64.747
December	72.050	67.832	66.740
Year	76.854	72.567	71.574
2002:			
January	73.944	69.786	68.202
February	76.384	72.226	70.831
March	78.683	74.525	72.779
April	76.966	73.107	72.118
January - April	76.494	72.411	70.983

1/ Listed as "U.S. producer cathode."

2/ Listed as "Comex high grade first position."

Sources: Platts Metals Week and American Metal Market.



TABLE 13  
NEW YORK AVERAGE BUYING PRICES FOR COPPER SCRAP

(Cents per pound)

Month	Brass mills No. 1 scrap	Refiners No. 2 scrap	Dealers (New York)	
			No. 2 scrap	Red brass turnings and borings
2001:				
April	72.98	61.36	51.16	42.00
May	72.82	61.95	51.86	42.00
June	68.29	57.99	51.52	42.00
July	66.46	57.50	50.00	42.00
August	64.33	55.37	46.00	39.00
September	63.39	54.46	46.00	40.00
October	61.39	52.78	44.48	38.39
November	63.45	53.82	40.09	37.09
December	65.87	54.47	41.47	37.00
Year	69.62	58.96	48.76	40.63
2002:				
January	67.36	55.62	41.19	38.10
February	69.42	57.29	43.00	37.00
March	72.24	59.76	43.00	39.00
April	71.82	54.00	44.00	38.91
January - April	70.21	56.67	42.80	38.25

Source: American Metal Market.

TABLE 14  
U.S. IMPORTS FOR CONSUMPTION OF COPPER (UNMANUFACTURED), BY CLASS 1/

(Metric tons, copper content)

Country or territory	Ore and concentrate			Matte, ash and precipitates			Blister and anodes			Refined		
	2002			2002			2002			2002		
	2001	March	January - March	2001	March	January - March	2001	March	January - March	2001	March	January - March
Brazil	--	--	--	--	--	--	--	--	--	12,000	--	13,000
Canada	7,210	245	4,320	43	18	64	79,700	7,670	21,100	270,000	27,600	87,200
Chile	51,800	19,900	37,800	--	--	--	87,700	7,150	8,070	174,000	18,700	52,400
Indonesia	20,000	--	--	--	--	--	--	--	--	--	--	--
Italy	--	--	--	--	--	--	12,200	--	--	--	--	--
Japan	--	--	--	(2/)	--	--	--	--	--	8,660	544	1,720
Kazakhstan	--	--	--	--	--	--	--	--	--	82,400	--	2,060
Mexico	2,550	--	--	317	--	--	48,900	190	2,020	131,000	3,240	16,100
Namibia	--	--	--	--	--	--	6,840	1,820	2,850	--	--	--
Peru	40,200	--	--	--	--	--	22,600	--	--	280,000	1,500	44,900
Philippines	--	--	--	--	--	--	4,990	--	--	999	--	--
Russia	--	--	--	--	--	--	115	--	--	22,800	145	2,170
Spain	--	--	--	--	--	--	4,420	--	--	--	--	--
Taiwan	--	--	--	560	52	156	--	--	--	34	--	--
Turkey	--	--	10,000	--	--	--	--	--	--	--	--	--
Other	--	--	--	25	--	--	3,510 r/	--	--	8,790 r/	1,300	3,830
Total	122,000	20,200	52,200	945	70	220	271,000	16,800	34,000	991,000	53,000	223,000

r/ Revised. -- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 15  
U.S. EXPORTS OF COPPER (UNMANUFACTURED), BY CLASS 1/

(Metric tons, copper content)

Country or territory	Ore and concentrate			Matte, ash and precipitates			Blister and anodes			Refined		
	2002			2002			2002			2002		
	January -			January -			January -			January -		
	2001	March	March	2001	March	March	2001	March	March	2001	March	March
Belgium	18	21	21	--	--	--	1,550	--	179	30	--	--
Canada	30,300	1,790	4,710	6,860	110	694	13,800	1,480	4,810	6,520	514	806
China	2,310	191	460	3	--	--	87	20	46	8,520	5	5
Egypt	--	--	--	--	--	--	2	--	--	2,160	2,200	2,200
France	1	--	--	64	--	--	2,130	--	40	62	--	--
Germany	443	--	7	50	--	35	982	--	20	169	16	23
Hong Kong	87	1	7	2	103	103	2,470	201	734	2,330	27	31
India	8	--	--	261	39	152	125	14	17	--	78	116
Israel	836	--	--	18	--	--	65	--	6	6	--	2
Italy	20	--	--	--	--	--	376	21	61	27	--	--
Japan	19	11	11	8	--	1,160	216	--	20	460	--	2
Korea, Republic of	699	--	170	1,090	5	5	1,320	39	191	78	67	314
Mexico	9,130	1,970	1,970	15,300	170	3,940	22	--	9	821	--	16
Singapore	159	--	60	(2/)	(2/)	(2/)	407	52	120	14	--	--
Taiwan	347	--	4	50	16	41	1,130	180	339	146	7	22
Thailand	22	--	--	--	--	--	264	33	70	--	--	--
United Kingdom	280	(2/)	(2/)	49	--	--	451	61	121	457	224	438
Venezuela	501	--	--	--	--	--	5	--	6	140	--	205
Other	143	2	27	144	2	12	644 r/	62	139	576 r/	19	69
Total	45,300	3,990	7,450	23,900	444	6,150	26,000	2,160	6,930	22,500	3,150	4,250

r/ Revised. -- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 16  
U.S. COPPER SCRAP TRADE 1/

(Metric tons, gross weight)

Country or territory	Imports						Exports					
	Unalloyed			Alloyed			Unalloyed			Alloyed		
	2002			2002			2002			2002		
	January -			January -			January -			January -		
	2001	March	March	2001	March	March	2001	March	March	2001	March	March
Belgium	--	--	--	388	--	--	1,260	144	449	1,470	647	1,650
Canada	10,600	945	3,280	45,800	2,860	8,760	38,700	1,620	5,060	33,100	2,570	6,980
China	41	--	--	15	108	152	156,000	9,770	27,800	136,000	11,700	29,700
Colombia	--	--	--	899	46	131	--	--	--	18	--	2
Costa Rica	868	101	300	635	50	106	--	--	--	3	--	2
Dominican Republic	1,550	135	421	1,570	119	251	--	--	--	--	--	--
France	--	--	--	188	--	40	11	223	495	59	21	21
Germany	27	--	--	62	--	--	6,500	1,690	4,510	9,480	1,960	4,460
Guatemala	499	47	148	1,990	85	290	--	--	--	--	--	--
Honduras	484	10	29	656	24	50	--	--	--	--	--	--
Hong Kong	--	--	--	--	--	--	4,300	848	2,080	5,440	515	1,700
India	--	--	--	--	--	--	2,770	325	917	33,400	4,460	12,100
Italy	309	19	77	--	--	--	117	11	23	143	--	--
Jamaica	283	46	103	470	7	122	--	--	--	--	--	--
Japan	169	(2/)	17	--	13	13	13,800	1,060	2,850	13,200	1,130	2,110
Korea, Republic of	--	--	19	20	--	--	24,400	1,710	4,710	17,800	1,890	5,870
Mexico	13,500	787	1,960	24,000	1,390	4,210	2,760	157	519	4,370	13	43
Panama	161	34	83	804	103	263	--	--	--	--	--	79
Peru	347	--	--	112	--	--	--	--	--	--	--	--
Spain	--	--	--	47	--	(2/)	549	18	18	2,710	218	1,220
Switzerland	--	--	--	45	--	--	596	20	20	3,720	295	703
Taiwan	--	--	--	554	37	96	9,120	868	2,650	5,870	677	1,520
United Kingdom	64	18	27	919	137	366	36	--	--	570	48	131
Venezuela	42	33	33	874	150	260	--	--	--	--	--	--
Other	1,270	92	317	4,320	544	908	977	265	450	4,460	459	828
Total	30,300	2,270	6,810	84,400	5,670	16,000	262,000	18,700	52,500	272,000	26,700	69,100

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Less than 1/2 unit.

Source: U.S. Census Bureau.